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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: William Veronesi
Serial No.: 10/589,479
Filed: 08/14/2006
Group Art Unit: 2857
Examiner: West, Jeffrey R.
Title: TENSILE SUPPORT STRENGTH MEASUREMENT
SYSTEM AND METHOD

CORRECTED APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Notification of Non-Compliant Appeal Brief mailed October 28, 2008,

Appellant hereby submits a Corrected Appeal Brief.

Real Party in Interest

Otis Elevator Company is the real party in interest. Otis Elevator Company is a business unit of United Technologies Corporation.

Related Appeals and Interferences

There are no related appeals or interferences.

Status of the Claims

Claims 16 and 20 are the only claims on appeal.

Claim 1-15 and 21-24 are allowed.

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Claims 17-19 are objected to but have been indicated as containing allowable subject matter.

Claims 16 and 20 stand rejected under 35 U.S.C. §103.

Status of Amendments

There are no unentered amendments.

Summary of Claimed Subject Matter

Independent claim 16 recites:

16. A system for determining a condition of an elevator tensile support, comprising:

a device for measuring an electrical characteristic of at least a portion of the tensile support; and

a controller that determines a current condition of the tensile support by relating the measured characteristic to a predetermined data set indicating a relationship between corresponding apparent characteristic values and conditions of the tensile support, the relationship being based upon at least one of a determined rate of degradation of the tensile support for a selected load, a modeled configuration of an elevator system, an estimated elevator traffic pattern, or a mean degradation of the tensile support based upon determined sheave contact and load information.

An exemplary embodiment upon which claim 16 reads can be appreciated by considering Figures 1 and 5. A device 302 for measuring an electrical characteristic of at least a portion of the tensile support may comprise, for example, a resistance meter. (Page 6, line 33 – page 7, line 1) A controller 304 determines a current condition of the tensile support by relating the measured characteristic to a predetermined data set indicating a relationship between corresponding apparent characteristic values and conditions of the tensile support. The relationship is based upon at least one of a determined rate of degradation of the tensile support for a selected load (page 3, lines 16-17), a modeled configuration of an elevator system (104, page 3, lines 22-24), an estimated elevator traffic pattern (106, page 3, lines 25-26), or a mean

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degradation of the tensile support based upon determined sheave contact and load information (108, page 3, lines 28-31).

Grounds of Rejection to be Reviewed on Appeal

Claims 16 and 20 stand rejected under 35 U.S.C. §103 based upon U.S. Patent Application Publication No. 2002/0194935 (the *Clarke* reference), in view of U.S. Patent No. 7,237,656 (the *Barrett* reference).

Claims 16 and 20 stand rejected under 35 U.S.C. §103 based upon U.S. Patent Application Publication No. 2004/0046540 (the *Robar* reference), in view of U.S. Patent No. 7,237,656 (the *Barrett* reference).

ARGUMENT

There is no *prima facie* case of obviousness because the references do not teach what the Examiner contends. None of the references teach determining a rate of degradation.

The rejection of claims 16 and 20 under 35 U.S.C. §103 based on *Clarke* and *Barrett* must be reversed.

The Examiner admits that the *Clarke* reference “does not explicitly indicate that a relationship is based on the determined rate of degradation for a selected load.” The Examiner then contends that the *Barrett* reference teaches an elevator load weighing device “including means for positioning a selected load on a plurality of tension members (column 2, lines 1-6 and column 3, lines 4-9) and determining a rate of degradation of an individual tension member for a selected load by monitoring how the degradation varies over time based on how much of the selected load is carried by each tension member” (column 3, lines 10-16). (Final Office Action, page 5)

Applicant respectfully disagrees with the Examiner’s conclusion and in particular with respect to the teachings of the *Barrett* reference. The only statement in the *Barrett* reference regarding degradation is found in column 3, lines 10-16. Specifically, the *Barrett* reference states,

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"by measuring the load in each tension member 28, individually, any stretching of [sic, or] degradation of the tension members 28 can also be sensed as the load carried by each tension member 28 varies over time." There is nothing in that statement that indicates any determination of a *rate* of degradation. The only thing that is sensed is degradation, itself. There is no relationship between any degradation sensed in the *Barrett* reference and any change in that degradation over time that would somehow correspond to a rate of degradation.

Determining a rate of degradation is a different thing than simply sensing degradation. Only the latter can be found in the *Barrett* reference. Without some analysis of how any detected degradation changes with respect to time in the *Barrett* reference, it is not possible to interpret that reference as teaching a rate of degradation. That is simply not determined in the *Barrett* reference.

Perhaps the Examiner is using the indication in the *Barrett* reference that the *load* is varying over time. How a load varies over time does not describe how degradation varies over time as suggested by the Examiner in the Office Action. There is a distinction between a load varying over time and degradation varying over time. For example, an elevator system load can vary from one run to another. A first run may include a single passenger in the car. The car then may return empty to a lobby floor (e.g., a different load on the return). A subsequent run of the elevator car may include five passengers (e.g., another load). The different number of passengers during the different times of elevator run varies the load on the elevator system.

Measuring degradation in the *Barrett* reference does not correspond measuring any rate of degradation. Instead, the *Barrett* reference only teaches, as quoted above, that by measuring load in each tension member, individually, stretching or degradation can be sensed because the load does vary over time. There is no tracking of how the load varies over time and there is no tracking of

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how the degradation varies over time. Therefore, it is not a reasonable interpretation of the *Barrett* reference to construe those teachings as if they somehow teach determining a rate of degradation.

Without any determination regarding a rate of degradation in the *Barrett* reference, the Examiner's proposed combination does not establish a *prima facie* case of obviousness. Even if the proposed combination could be made, it does not provide a result that establishes a *prima facie* case of obviousness because there is nothing in that proposed combination corresponding to determining a rate of degradation as suggested by the Examiner.

The rejection under 35 U.S.C. §103 of claims 16 and 20 must be reversed.

**The rejection of claims 16 and 20 under 35 U.S.C. §103
based on the *Robar* and *Barrett* references must be reversed.**

The Examiner admits that the *Robar* reference does not "explicitly indicate that a relationship is based on a determined rate of degradation for a selected load." The Examiner attempts to fill this gap with the *Barrett* reference. As already explained, the *Barrett* reference does not contain any teaching regarding determining a rate of degradation. Therefore, there is no *prima facie* case of obviousness and the rejection must be reversed.

CONCLUSION


The Examiner admits that neither primary reference teaches a determined rate of degradation. The secondary reference (*Barrett*) does not teach this either. Therefore, there is no *prima facie* case of obviousness. The rejections of claims 16 and 20 must be reversed.

Respectfully submitted,

CARLSON, GASKEY & OLDS, P.C.

November 26, 2008

Date

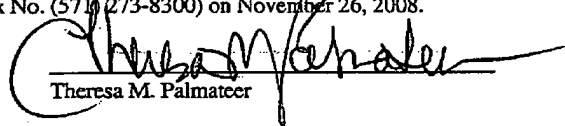


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CERTIFICATE OF FACSIMILE

I hereby certify that this Appeal Brief, relative to Application Serial No. 10/589,479, is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571) 273-8300) on November 26, 2008.


Theresa M. Palmateer

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APPENDIX OF CLAIMS

16. A system for determining a condition of an elevator tensile support, comprising:
a device for measuring an electrical characteristic of at least a portion of the tensile support; and
a controller that determines a current condition of the tensile support by relating the measured characteristic to a predetermined data set indicating a relationship between corresponding apparent characteristic values and conditions of the tensile support, the relationship being based upon at least one of a determined rate of degradation of the tensile support for a selected load, a modeled configuration of an elevator system, an estimated elevator traffic pattern, ~~sheave contact and load information~~, or a mean degradation of the tensile support based upon determined sheave contact and load information.
20. The system of claim 16, wherein the electrical characteristic is resistance.

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EVIDENCE APPENDIX

None.

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RELATED PROCEEDINGS APPENDIX

None.